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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,085	10/04/2005	Matthias Fehr	GK-EIS-1097/500593.20090	4150

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EXAMINER

AKBAR, MUHAMMAD A

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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12/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,085

Applicant(s)

FEHR ET AL.

Examiner

Muhammad Akbar

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/4/2005, 03/31/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show legend in fig.1 and fig.2 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: The brief description of the figure 2 is missing, especially fig.2 item number 14 is not mention in the disclosure. Appropriate correction is required.

3. In paragraph [009] line 5 described " The two form a mechanical unit" which is unclear. This sentence should be replaced with previous sentence -- The circulator or HF isolator are integrated in the antenna and form a mechanical unit-- . Appropriate correction is required.

Claim Objection

4. Claims 14,18,19,20,21 are objected to because of the following informalities:

Re claim 14, the term " the two " (line 4) should be deleted.

Re claim 18, the phrase "A pocket transmitter " appears to be "The pocket transmitter ".

Re claim 19, the phrase "A hand transmitter " appears to be "The hand transmitter ".

Re claim 20, the phrase " The microphone " appears to be "The wireless microphone".

Re claim 21, the phrase " The wireless " appears to be " a wireless ".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim(s) 14,15,26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make “and/or” use the invention. In claims 14,15, 26 as cited “and/or ” language but there is no explicit and deliberate description in the specification that supports the three embodiments wherein antenna integrated a) with isolator, b) with circulator and c) with isolator and circulator. Thus claims failing to comply with the enablement.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 15, 18, 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Re claim 15, the phrase " wherein said circulator" (line 1) renders the claim unclear and indefinite because of claim 15 cited as an independent claim. Examiner believed claim 15 is a depended claim and dependent on claim 14. Appropriate correction is required.

Re claim 18, the phrase " the microphone " (line 3) renders the claim unclear and indefinite because there is many microphone cited preceding claim i.e. it could be wireless microphone, transmitter microphone (claim 16), and pocket transmitter microphone. Appropriate correction is required.

Re claim 27, the phrase "or the like " renders the claims indefinite because the claim includes elements not actually discloses (those encompassed by 'or the like"), thereby rendering the scope of the claims unascertainable. See MPEP 2173.05(d).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 14-18, 21 -23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al (U.S. Pub. No. 2002/0197957 A1) (hereafter Kawasaki) and in view of Anderson (U.S. Patent No. 5,721,783).

Re claim 14, Kawasaki discloses a wireless microphone system (100 of fig.1) comprising: antenna (28 of fig.1) connected to the microphone thereto (see fig.1).

Although Kawasaki discloses a high frequency amplifying section (27 of fig.2) wherein signal splitting with transmitting /receiving manner but Kawasaki fails to disclose circulator or HF isolator being connected to the antennae or the antenna; and said circulator or HF isolator being integrated in the antenna and forming a mechanical unit.

However, Anderson teaches wireless microphone (20 of fig.20) integrated with antenna (same field of endeavor) (see fig.2) wherein circulator (906 of fig.9) being connected with antenna (900) or antennas (see fig.9 and col.13 lines 1-12); and said circulator (906) being integrated with antenna (900) and forming a mechanical unit (see fig.1,2,9 and 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless microphone comprising antenna (as taught by Kawasaki) by incorporating circulator with antenna and being integrated as a mechanical unit (as taught by Anderson) to obtain multiple selection in one device by incorporating circulator for routing switches in various channel.

(It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wireless microphone antenna with circulator or isolator (which is obvious to have a circulator or isolator for signal receiving and transmitting in the transceiver section) and put together antenna and circulator to form a mechanical unit just need a routine skill in the art . see Howard v. Detroit Stove works, 150 U.S. 164 (1893)).

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Re claim 15, 17, as discussed above with respect to claim 14, Kawasaki further teaches antenna (28) being plugged in the microphone (see fig.1).

Anderson further teaches wireless microphone (20 of fig.20) comprising antenna and circulator (906 of fig.9) being integrated and forming a mechanical unit and can be tuned (see fig.1,2,9 and 10 and col.4 lines 40-49).

Re claim 16, 18, as discussed above with respect to claim 14, Kawasaki further teaches wireless microphone comprises a hand transmitter microphone (101 of fig.1) and a diversity receiver (102) (see fig.1).

Anderson further teaches wireless microphone (20 of fig.20) comprising antenna and circulator (906 of fig.9) being integrated and forming a mechanical unit (see fig.1,2,9 and 10 and col.4 lines 40-49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wireless microphone antenna with circulator or isolator (as taught by Anderson) and plugged together antenna and circulator to form a mechanical unit and can be used in a pocket transmitter for more convenience to carry.

Re claim 21, 22, 23, Kawasaki discloses a wireless microphone system (100 of fig.1) comprising: high frequency input receiving unit (30 of fig.3) and receiving antenna (42 of fig.1) which is fixed and disposes in common housing (see fig.1 and 3).

But Kawasaki fails to disclose receiving unit comprising circulator or HF isolator. However, Anderson teaches wireless microphone (20 of fig. 20) integrated with

antenna (same field of endeavor) (see fig.2) wherein circulator (906 of fig.9) being integrated with receiving unit (see fig.9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless microphone comprising receiving unit and antenna (as taught by Kawasaki) by incorporating circulator with receiving unit and antenna (as taught by Anderson) to obtain multiple selection in one device by incorporating circulator for routing switches in various channel.

Re claim 26, as discussed above with respect to claim 14, Kawasaki discloses a wireless microphone system (100 of fig.1) comprising: transmission section (101 of fig.1) comprising antenna (28 of fig.1) connected to the microphone thereto (see fig.1 and 3).

But Kawasaki fails to disclose circulator or HF isolator being connected to the antennae or the antenna; and said circulator or HF isolator being integrated in the antenna.

However, Anderson teaches wireless microphone (20 of fig.20) integrated with antenna (same field of endeavor) (see fig.2) wherein circulator (906 of fig.9) being connected with antenna (900) or antennas (see fig.9 and col.13 lines 1-12); and said circulator (906) being integrated with antenna (900) (see fig.1,2,9 and 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless microphone comprising antenna (as taught by Kawasaki) by incorporating circulator with antenna and being integrated as a

mechanical unit (as taught by Anderson) to obtain multiple selection in one device by incorporating circulator for routing switches in various channel.

13. Claims 19,20,24,25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al and in view of Anderson as applied in claim 14 and 16 and further in view of McCowen et al (U.S. Patent No. 4,910,795).

Re claim 19, 20, as discussed above with respect to claim 14,16, Kawasaki discloses a hand held transmitter wireless microphone (101 of fig.1) wherein antenna (28 of fig.1) is mechanically fixed (see fig.1).

Anderson further teaches wireless microphone (20 of fig.20) comprising antenna and circulator (906 of fig.9) being integrated and forming a mechanical unit (see fig.1,2,9 and 10 and col.4 lines 40-49) and wireless microphone (20) transmitter is tunable to a given frequency (see fig.2 and col.4 lines 40-49).

But failed to disclose common mechanical unit can be replaced as a unit. However, McCowen teaches wireless microphone wherein antenna (28) is fixed with lower part of housing (22 of fig.2) and can be replaced as a separate unit (see fig.2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless microphone comprising antenna (as taught by Kawasaki) by incorporating circulator with antenna and being integrated as a mechanical unit (as taught by Anderson) and further modify microphone as different housing wherein antenna can be replaced as separate unit as taught by McCowen to

make device easier maintenance and trouble shooting by separating the different housing.

Re claim 24, 25, as discussed above with respect to claim 21, Kawasaki discloses a receiver unit (102 of fig.1) comprising antenna (28 of fig.1) (see fig.1).

Anderson further teaches wireless microphone (20 of fig.20) comprising antenna and circulator (906 of fig.9) being integrated and forming a mechanical unit (see fig.1,2,9 and 10 and col.4 lines 40-49) and wireless microphone (20) is tunable to a given frequency (see fig.2 and col.4 lines 40-49). But failed to disclose common mechanical unit can be replaced as a unit.

However, McCowen teaches wireless microphone wherein antenna (28) is fixed with lower part of housing (22 of fig.2) and can be replaced as a separate unit (see fig.2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless microphone comprising antenna (as taught by Kawasaki) by incorporating circulator with antenna and being integrated as a mechanical unit (as taught by Anderson) and further modify microphone as different housing wherein antenna can be replaced as separate unit as taught by McCowen to make device easier maintenance and trouble shooting by separating the different housing.

14. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al and in view of Anderson as applied in claim 14 and 26 and further in view of Taniguchi et al (U.S. Patent No. 6,987,949 B2).

Re claim 27, as discussed above with respect to claim 14, 26, and Kawasaki and Anderson teach all the limitation except the antenna externally includes a visible identification, coding or color marking or the like, the identification, coding or color marking being attributed to a given frequency range.

However, Taniguchi teaches wireless microphone system (see fig.1 and title) (same field of endeavor) wherein be receiving system (101) comprising antenna (102) and receiving apparatus identify globally or locally within the given communication frequency range (see fig.1 and col.7 lines 36-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless microphone comprising antenna (as taught by Kawasaki) by incorporating circulator with antenna (as taught by Anderson) and further modify microphone receiving antenna with global or local identification system within the given frequency range as taught by Taniguchi to make device identifiable faster for receiving information in a communication system.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (7.96)

The following patent are cited to further show the state of the art with respect to clips and bookmarks in general:

U.S. Patent No. 6,928,170 to Statham teaches wireless microphone having a split band audio frequency.

U.S. Patent No. 5,949,382 to Quan teaches dielectric flare notch radiator with separate transmit and receiver port by using circulator.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muhammad Akbar whose telephone number is (571)-270-1218. The examiner can normally be reached on Monday- Thursday (8:00 A.M.- 5:00P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA

A handwritten signature in cursive script, appearing to read "Lana Le".

12-10-07

LANA LE
PRIMARY EXAMINER